Kindly amend the claims as follows:

10. Currently amended) Intervertebral nucleus prosthesis consisting of at least one substantially spherical body or ball movable in two directions of a plane and made of a rigid, non-oxidizing, biocompatible material, with a diameter adapted to a biological nucleus, said spherical body being mounted non-displaceably, but freely rotatably, about its center in a cage and protruding at both opposite sides of said cage in the form of ~~a~~ spherical caps ~~from the cage~~.

11. Currently amended) Prosthesis in accordance with claim 10, wherein the cage is substantially planar, is curved in ~~it's~~ said plane and is substantially symmetrical in relation to a ~~transverse center~~ plane that is transverse to the plane of said cage and that includes a center axis in said cage.

12. (Currently amended) Prosthesis in accordance with claim 11, wherein in cross section, the cage has the shape of an isosceles trapezoid comprising a narrow side and a wide side, with the ends of the curved shape arranged at the narrow side thereof, the trapezoidal shape facilitating displacement in the plane of the ~~intervertebral disc~~ cage and preventing substantial rotation of the prosthesis about its center axis.

13. (Previously presented) Prosthesis in accordance with claim 10, wherein the cage comprises a casing made of a light, rigid, non-oxidizing, biocompatible material, and contains a mass made of a material with a minimum coefficient of friction,

and wherein a space for accommodating the movable spherical body is provided in the interior of the mass, said spherical body being held trapped but freely rotatable therein.

14. (Previously presented) Prosthesis in accordance with claim 13, wherein said casing comprises titanium.

15. (Previously presented) Prosthesis in accordance with claim 14, wherein said mass comprises polyethylene.

16. (Previously presented) Prosthesis in accordance with claim 13, wherein said mass comprises polyethylene.

17. (Currently amended) Prosthesis in accordance with claim 10, wherein the cage has essentially the shape of an isosceles trapezoid and holds several identical ~~balls~~ spherical bodies which each touch on both sides of the horizontal center plane of the cage an identical imaginary plane lying outside the cage, and which are located on both sides of the cage at the corners of an isosceles triangle.

18. (Currently amended) Prosthesis in accordance with claim 10, wherein the cage consists of two substantially identical single components in the shape of an isosceles trapezoid, which are arranged such that their center planes extending at right angles to the parallel bases and along their center lines are essentially parallel to each other, and wherein the large bases of the trapezoidal single components lie essentially in a vertical

plane, said single components being connected to each other by at least two elastic connecting elements which extend at right angles to the center planes of the single components and are located in the end area of the large axis forming a common tangent to the sets of ~~balls~~ spherical bodies which are each located on the outside of ~~the~~ an arrangement of spherical bodies at the corners of isosceles triangles, said triangles being oppositely orientated.

19. (Currently amended) Prosthesis in accordance with claim 17, wherein the cage consisting of one single component or several single components with the ~~balls~~ spherical bodies has a volume which taking into consideration the function of the cage as holder for the ~~balls~~ spherical bodies is adapted as well as possible to the volume of the biological nucleus, thereby to ensure a self-positioning of the prosthesis, which allows the prosthesis to always be in .the anatomical position and the natural Movements between two vertebral bodies to be restored.

20. (Currently amended) Prosthesis in accordance with claim 10, wherein the height of the spherical cap protruding from the cage is approximately a tenth of the diameter of the ~~movable~~ spherical body.

21. (Currently amended) A method for implanting an intervertebral nucleus prosthesis, within the confines of an annulus of an intervertebral disc, consisting of at least one spherical body movable in two directions of a plane and made of a rigid, non-oxidizing, biocompatible material, with a diameter adapted to a biological nucleus, said

spherical body being mounted non-displaceably but freely rotatably about its center in a cage and protruding at both opposite sides, in the form of ~~a~~ spherical caps, from the cage, comprising the steps of:

for insertion of the prosthesis consisting of the cage and ~~balls~~ spherical bodies, making an incision endoscopically in the annulus between two vertebral bodies, thereby providing an opening which is just large enough to reach and remove ~~the~~ a damaged nucleus;

removing said damaged nucleus through said incision; ~~and~~

immediately after removal of said damaged nucleus, inserting, ~~in~~ through the same ~~way~~ incision, said ~~the artificial~~ nucleus prosthesis which automatically centers itself in the cavity ~~thus~~ formed by the removal of said damaged nucleus, and

subsequently closing said ~~opening~~ incision.

22. (Currently amended) The method of claim 21, wherein said ~~opening~~ incision is closed by a suture.

23. (New) A prosthesis, adapted to replace a damaged nucleus of an intervertebral disc comprising an annulus, said prosthesis comprising:

a cage of a substantially planar shape that is adapted to fit within said annulus and is thinner than a space that is adapted to be maintained between next adjacent vertebra that are adapted to be separated by said disc, and

at least one spherical body disposed non-displaceably in said cage and freely rotatable about its center so as to be movable in two directions in the plane of said cage, and made of a rigid, non-oxidizing, biocompatible material, wherein said spherical body has a diameter that is greater than the planar thickness of said cage and is adapted to protrude from both opposite sides of said cage in the form of spherical caps, wherein said

spherical body has a diameter such that it is adapted to be disposed in said space between said next adjacent vertebra and within the confines of said annulus.

24. (New) A prosthesis as claimed in claim 23 wherein said spherical body is not substantially elastically deformable.